Sil-Pad[®] 400

The Original Sil-Pad Material

Features and Benefits

- Thermal impedance: 1.13°C-in²/W (@50 psi)
- Original Sil-Pad material
- Excellent mechanical and physical characteristics
- Flame retardant



Sil-Pad 400 is a composite of silicone rubber and fiberglass. The material is flame retardant and is specially formulated for use as a thermally conductive insulator. The primary use for Sil-Pad 400 is to electrically isolate power sources from heat sinks.

Sil-Pad 400 has excellent mechanical and physical characteristics. Surfaces are pliable and allow complete surface contact with excellent heat dissipation. Sil-Pad 400 actually improves its thermal resistance with age. The reinforcing fiberglass provides excellent cut-through resistance. In addition, Sil-Pad 400 is non-toxic and resists damage from cleaning agents.

TYPICAL PR	OPERT	IES OF	SIL-P	AD 400			
PROPERTY	IMPERIA	L VALUE	METRIC VALUE		TEST METHOD		
Color	Gray		Gray		Visual		
Reinforcement Carrier	Fiberglass		Fiberglass				
Thickness (inch) / (mm)	0.007, 0.009		0.178, 0.229		ASTM D374		
Hardness (Shore A)	85		85		ASTM D2240		
Breaking Strength (lbs/inch) / (kN/m)	30		5		ASTM D1458		
Elongation (%45° to Warp and Fill)	54		54		ASTM D412		
Tensile Strength (psi) / (MPa)	3000		20		ASTM D412		
Continuous Use Temp (°F) / (°C)	-76 to	-76 to 356		-60 to 180		—	
ELECTRICAL							
Dielectric Breakdown Voltage (Vac)	3500,	4500	3500, 4500		ASTM D149		
Dielectric Constant (1000 Hz)	5.5		5.5		ASTM D150		
Volume Resistivity (Ohm-meter)	1011		10 ¹¹		ASTM D257		
Flame Rating	V-	V-O		V-O		U.L. 94	
THERMAL							
Thermal Conductivity (W/m-K)	0.9		0.9		ASTM D5470		
THERMAL PERFORMANCE vs PRES	SURE						
Pressure (psi)		10	25	50	100	200	
TO-220 Thermal Performance (°C/W) 0.007"		6.62	5.93	5.14	4.38	3.61	
TO-220 Thermal Performance (°C/W) 0.009"		8.51	7.62	6.61	5.63	4.64	
Thermal Impedance (°C-in²/W) 0.007" (1)		1.82	1.42	1.13	0.82	0.54	
Thermal Impedance (°C-in²/W) 0.009" (1)		2.34	1.83	1.45	1.05	0.69	

 The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided reference only Actual application performance is directly related to the surface roughness, flatness and pressure applied.

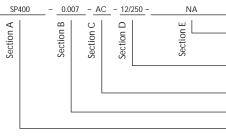
Typical Applications Include:

- Power supplies
- Automotive electronics
- Power semiconductors
- Automotive electron
- rs Motor controls

Configurations Available:

• Sheet form, die-cut parts and roll form; with or without pressure sensitive adhesive

Building a Part Number



Standard Options

📢 example

	NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.		
	= Standard configuration dash number, $1212 = 12^{\circ} \times 12^{\circ}$ sheets, $12/250 = 12^{\circ} \times 250^{\circ}$ rolls, or 00 = custom configuration		
	AC = Adhesive, one side; $AC2 = Adhesive$, two sides; or $00 = no adhesive$		
	Standard thicknesses available: 0.007", 0.009"		
	SP400 = Sil-Pad 400 Material		
heraquistcompany.com			

Note: To build a part number, visit our website at www.bergquistcompany.com. Sil-Pad® U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others



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